

The horns of the Nahoor differ but little in flexure from those of the next species, but may nevertheless be distinguished by many differences, in general strongly pronounced: as their superior size; the greater proportional thickness of the basal half, beyond which they narrow somewhat abruptly; the flatness of their dorsal aspect, with a much more acutely raised ridge along its middle; and by the comparative sharpness of all the angles, together with the existence, generally, of some traces of cross striæ, more particularly towards their compressed tips; whereas the horns of the Burrhel Sheep are much less angular, of a deep rufous-brown colour, and quite smooth. Those of the female Nahoor described were entirely destitute of cross furrows, but all have the marks of annual growth conspicuously indented.

This species, according to Mr. Hodgson, "inhabits the Kâchar region of Nepâl, northward of the habitat of the Jharal Goat, amid the glaciers of the Himalaya, and both on the Indian and Thibetan sides of that range." Mr. Vigne informs me that it is plentiful in Great, but not in Little Thibet. I suspect that it is never found at so considerable an altitude as the next species.

[To be continued.]

XXVII.—*Flora of Central Norfolk.* By S. P. WOODWARD, Esq.

Addenda to Mr. Mann's List of Norwich Plants.

UPON comparing the list of Norwich Plants given by Mr. R. J. Mann, in the August number of the 'Magazine of Natural History' (vol. iv. p. 390), with my own, I found many interesting plants and localities had been omitted; and as it is not to be expected that one observer should, in a few years' investigation, discover all his district contains, I cannot but regret that Mr. M. did not avail himself more extensively of the information of other collectors. For the omitted localities there is no remedy, and for the plants time only allows me to give what are recorded on my lists in addition to those just published. Mr. Wigham, of Norwich, could, I believe, supply many others which his long residence has made him familiar with. In the Mosses and Hepaticæ much remains to be done ere our list will vie with that of Yarmouth, published by Mr. Paget; the freshwater Algæ of this district have been entirely neglected; and the Lichens, no one, that I am aware of, could catalogue. Mr. Paget's list, which gives the result of the labours of Mr. Dawson Turner and other indefatigable botanists, must represent all that is known at present of the distribution in Norfolk of these extensive and intricate classes. Mr. Stock of Bungay, who has for some years collected the minute parasitic Fungi with great perseverance and success, will, it is to be hoped, some day publish a detailed list; in the other

classes the Norfolk Flora is probably as extensive and varied, and as well investigated, as that of any English county.

I have ventured to introduce—in *brackets*—some plants which are a few miles beyond the *ten mile circuit*, because I believe they may be found within it; and a few which are considerably beyond, because they are either omitted in the published floras, or their recent occurrence in the spots indicated is not well known.

Of those plants for which I have given authorities, I have, with few exceptions, received specimens; those in Roman are generally considered only varieties.

EXOGENÆ.

Clematis Vitalba. Hedges and thickets, Eaton, Long Stratton, Brooke, Hockering.

Ranunculus arvensis. Corn-fields, Stoke Holy Cross, Armeringhall.

———— *auricomus*. Lakenham Hall Wood.

———— *parviflorus*. Armeringhall.

———— *pantothrix*, *circinnatus*. Ditches: common.

Adonis autumnalis. Waste ground, Lakenham.

Papaver hybridum. Lanes and borders of fields, Lakenham.

———— *dubium*. Ditto: abundant.

Corydalis lutea. Old walls: frequent.

*Lepidium Smithii**. Lanes, Eaton and Lakenham.

Thlaspi arvense. Lakenham, near the Hall Farm.

Nasturtium amphibium. Lakenham Marshes.

Brassica Napus. Fields and waste places.

Viola flavicornis. Mosswold.

———— *arvensis*. Fields: frequent.

———— *suavis*. Thorpe, Horstead.

Helianthemum vulgare. Westfields, Eaton.

Sagina apetala. Banks: frequent: St. Faith's, &c.

Cerastium aquaticum. Lakenham Marshes.

———— *semidecandrum*. Borders of Drummond's Grove.

Sedum rupestre. Bracondale Hall Wood.

———— (*album*. Walls, Dereham.)

Chrysosplenium oppositifolium. Stoke Holy Cross.

———— *alternifolium*. Ditto, Poringland.

Ulex nanus. St. Faith's Heath.

Vicia angustifolia. Lanes and chalk-pits.

Lathyrus sylvestris. Brundall.

Lotus tenuis. Dry chalky pastures.

Trifolium ochroleucum. Poringland, Long Stratton.

———— *fragiferum*. St. Faith's; near Dereham; in Aclé.

———— *procumbens*. Fields and hedges.

Rubus Kæhleri. Hedges and woods: frequent.

Rosa tomentosa. St. Faith's Wood.

Pyrus torminalis. Lakenham Hall Wood.

———— *Aria*. Woods and plantations.

* *L. campestre* I have not seen nearer Norwich than Dereham or Bungay.

- Circea lutetiana*. Armeringhall Wood.
Ribes Grossularia. Lakenham Hall Wood.
Sison Amomum. Chalky pastures towards Dereham, Long Stratton, Bungay-road.
Silaus pratensis. Long Stratton, &c.
Peucedanum palustre. Horning.
Galium parisiense. Carhoe Abbey.
Campanula Rapunculus. Lakenham, Brooke.
 ——— *hybrida*. Corn-fields: abundant: Eaton, &c.
Dipsacus pilosus. Loddon; near Dereham.
Scabiosa columbaria. Hedges and copses, Lakenham, Keswick, &c.
Lactuca virosa. Carhoe Abbey, Whitlingham (St. Benedict's Abbey).
Bidens tripartita. St. Faith's, &c.: frequent.
Onopordum Acanthium. Borders of fields: frequent.
Carlina vulgaris. Bramerton Heath.
Conyza squarrosa. Strumpshaw, &c., Mr. Wigham.
Cnicus acaulis. Horning (Neatherd Moor and Scarning Fen, Dereham).
Myosotis cæspitosa. Lakenham, St. Faith's.
Lithospermum arvense. Postwic Crag-pits.
Cuscuta europæa. (Burston near Diss, C. B. Prentice; Cromer.)
Oxyococcus palustris. Stoke Holy Cross, Mr. Bayfield; Horning.
(Pyrola rotundifolia. Bogs by Upton Broad, 1840, S. P. W.)
Chlora perfoliata. Armeringhall, Mr. Wigham.
*Gentiana campestris**. St. Faith's Common, 1837, J. W. E. and S. P. W.
 ——— (*amarella*. Scarning Fen, Dereham.)
Vinca minor. Thickets and copses.
Verbascum Lychnitis. Borders of fields and waste ground.
 ——— *nigrum*. Lanes, Lakenham, Bungay-road.
Datura Stramonium. Waste ground and chalk-pits.
(Atropa Belladonna. Toft trees near Fakenham.)
Utricularia minor, vulgaris. St. Faith's Bogs, B. B. W. (Roydon near Diss.)
Digitalis purpurea. Plantations and woods, Keswick, Sprowston.
Melampyrum arvense. Costessy.
(Linaria minor. Near Dereham, B. B. W.)
Orobanche minor. Lakenham, &c.: frequent.
(Scrophularia vernalis. Langham, 1840, Mr. G. Clowes.)
Mentha sylvestris. Meadows near Harford Bridges.
Acinos vulgaris. Keswick Hall grounds, Eaton.
Galeopsis versicolor. Hethersett.
Stachys arvensis. Fields and lanes, Lakenham.
Aristolochia Clematitis. Carhoe Abbey.
Rumex palustris. Felthorpe, &c.
 ——— *aquaticus*. Marshes: abundant.
 ——— *sanguineus*, β . Armeringhall.
Polygonum Bistorta. Lakenham, Brooke, Sizeland.
Euphorbia Lathyris. Road-sides and waste places.

* *G. amarella* of Mr. Mann?

Salix Caprea, cinerea, stipularis. Ozier-holts and woods : frequent.
Populus canescens. Banks of the Yare and Tees.
Castanea vulgaris. Woods and plantations.
Taxus baccata. Hockering : small trees frequent.
Pinus sylvestris. Keswick Hall : small trees frequent.

ENDOGENÆ.

(*Stratiotes aloides.* Ditches, Aclé, Barton Broad, &c.)
Sparganium fluitans. Ponds on St. Faith's Common.
Potamogeton pusillus. Yare, by Lakenham.
 ——— *gramineus.* Yare, Norwich.
 ——— (*prælongus.* Waveney, by Bungay, Mr. Stock and Mr. C. Babington.)
Iris fœtidissima. Armeringhall Wood. (Bath Hills, Bungay.)
(Gymnadenia conopsea. Scarning Fen, Dereham.)
 ——— (*viridis.* Fields near Bungay.)
Habenaria chlorantha. Armeringhall Wood.
 ——— (*bifolia.* ? St. Faith's, see Mr. Mann's list ; Upton, near the Broad.)
Ophrys muscifera. Stoke Holy Cross.
Listera Nidus avis. Armeringhall Wood, Mr. J. W. Ewing.
Liparis Læselii. St. Faith's Bogs.
Convallaria multiflora. Lakenham Hall Wood.
Ornithogalum umbellatum. Postwic Churchyard (St. Benedict's Abbey).
Tulipa sylvestris. Bracondale, Mr. Bayfield ; Trowse, Kirby Bedon, fields and chalk-pits : rare.
Scilla nutans. Woods : everywhere.
Muscari racemosum. City walls.
Paris quadrifolia. Bunwell Wood, Mr. G. E. Bolingbroke : Costessy.
Acorus Calamus. Moat, Cringleford Hall (St. Benedict's Abbey) : flowering freely, 1840.
Luzula pilosa. Armeringhall Wood.
Scirpus setaceus. St. Faith's Bogs.
Rhynchospora alba. Felthorpe.
Eleocharis multicaulis. St. Faith's Bogs.
Carex divulsa. Bixley, Lakenham Hall Wood.
 ——— *remota.* Armeringhall, ditches and woods.
 ——— *stellulata.* Lord Roseberry's grounds, Bixley.
 ——— (*divisa.* Meadow by Aclé Bridge, 1836, S. P.W.)
 ——— *fulva.* Lakenham Marshes.
 ——— *Æderi.* Poringland.
 ——— *filiformis.* Surlingham, near the Broad.
 ——— *pulicaris.* Cringleford Marshes.
 ——— *teretiuscula.* St. Faith's Bogs.
 ——— (*pendula.* Scarning Fen, Dereham, B. B.W.)
 ——— (*dioica.* Scarning Fen, B. B.W., Ellingham Fen.)
Aira flexuosa. St. Faith's Bogs.
Poa bulbosa.* Old walls, Horsefair, Norwich.
 ——— *nemoralis.* Lakenham Hall Wood.
Calamagrostis lanceolata. Lakenham Marshes.

* Mr. D. Turner has seen this : it was found by Mr. Mann.

- Hordeum pratense*. Meadows : frequent.
Avena fatua. Corn-fields.
 — (*pubescens*. Fields, Dereham.)
Bromus asper. Borders of fields : frequent.
 — *secalinus*. Wheat-fields, Lakenham (Smalburgh).
 — *racemosus*. Pastures : frequent.
 — *giganteus*. Woods : frequent.

CELLULARES.

FILICES.

- Cystopteris fragilis*. Old wall, Norwich, 1835.
Polystichum lobatum. Lakenham, Long Stratton (Dereham).
 — *angulare*. Brundall (Fakenham, Mundesley).
 — (*aculeatum*. Near Fakenham.)
Lastræa dilatata. Drummond's Grove, Thorpe ; Stoke Holy Cross, Cringleford.
 — (*spinulosa*. Holt Heath, Fritton Heath, Bawsey.)
 — (*cristata*. Edgefield Heath, near Holt ; Fritton Heath, near Yarmouth ; Bawsey, near Lynn ; Mr. J. W. Ewing, 1840.)
 — *Thelypteris*. St. Faith's, Felthope (Scarning, Filby, Upton).
 — (*Oreopteris*. Near Cromer, Mr. J. W. Ewing, 1840.)
Athyrium Filix fœmina. Horning (Scarning, Filby, Fritton, Belton, Upton).
Asplenium Ruta muraria. Lakenham and Eaton Bridges (Dereham and Hasboro' Churches).
 — *Trichomanes*. Aylsham, Eaton, Lakenham (Fakenham Churchyard) ; old walls, tombs, lanes, &c.
 (*Ceterach officinarum*. Heydon Church, Mr. Stock.)
Ophioglossum vulgatum. Lakenham Hall Wood, Whitlingham Wood, Armeringhall Wood, Horning (Upton, Ellingham).
Botrychium lunaria. Stratton Strawless.

MUSCI.

- Phascum cuspidatum*. Clayey banks, Lakenham.
 — *crispum*. Clayey banks, Bixley.
 — *rectum*. Clayey banks near Harford Bridges.
 — *axillare*. Moist ground, Lakenham.
 — (*muticum*. Belton, near Yarmouth, hedge-banks.)
Sphagnum squarrosum. St. Faith's Bogs, &c.
Bartramia fontana. Bramerton. (Scarning, B. B. W.)
Gymnostomum truncatulum, fasciculare, pyriforme. Shady banks, Bixley, Lakenham.
Splachnum ampullaceum. (Barren.) Upon animal excrement in bogs : not unfrequent.
Weissia lanceolata. Hedges, Lakenham.
Didymodon purpureus. Mosswold, &c., dry banks : abundant.
Dicranum scoparium. Mosswold, &c., dry banks : abundant.
 — *adiantoides*. St. Faith's, boggy ground : frequent.
 — *taxifolium*. Bixley Church Lane.
 — *glaucum*. St. Faith's, &c. : abundant in bogs.
Tortula unguiculata. Lakenham and Bixley, on hedges.

- Polytrichum juniperinum*. St. Faith's Heath (Scarning Fen).
 ——— (*urnigerum*. Gillingham.)
Orthotrichum cupulatum. Trees, Lakenham.
 ——— (*Hutchinsiae*. Ruins of the Garianonum, near Yarmouth.)
Anomodon viticulosus. Armeringhall Wood.
 ——— (*curtipendulum*. Fakenham Heath.)
Bryum argenteum. Walls and moist ground everywhere.
 ——— *nutans*. Hedge-banks : rather rare.
 ——— *roseum*. Mosswold, Bramerton.
 ——— *hornum*. Drummond's Grove, Thorpe, Lakenham.
 ——— *cuspidatum*. Drummond's Grove, moist lanes : frequent.
Buxbaumia aphylla. Sprowston, Sir W. J. Hooker.
Leucodon sciuroides. Lakenham, on trees and walls.
Daltonia heteromalla. Lakenham, on trees.
Fontinalis antipyretica. The Yare and Wensum.
Hypnum complanatum. Hawthorn fences.
 ——— *lutescens*. Bramerton.
 ——— *albicans*. Mosswold.
 ——— *alopecurum*. Armeringhall.
 ——— *proliferum*. Armeringhall, Lakenham Hall Wood.
 ——— *stellatum*. Bogs and marshes.
 ——— *triquetrum*. Heaths and woods : abundant.
 ——— *squarrosum*. Lanes and woods : frequent.
 ——— *palustre*. Marshes.
 ——— *scorpioides*. Marshes and bogs.
 ——— *molluscum*. Markshall, hedge-banks.
 ——— (*dendroides*. Fakenham.)

HEPATICÆ.

- Riccia crystallina*. Banks at Bixley and Armeringhall, turnip- and clover-fields : frequent.
Sphærocarpus terrestris. Banks at Bixley and Armeringhall, turnip- and clover-fields : frequent.
Marchantia polymorpha, *conica*, *hemisphærica*. Walls and banks, river-side, &c. : frequent.
Jungermannia bicuspidata. Damp lanes and woods : frequent.
 ——— *complanata*, *dilatata*. Trees : frequent.
 ——— *connivens*. Bogs, among Bryums.
 ——— *pinguis*. Ditches and bogs : frequent.
 ——— (*asplenioides*, *tamarisci*. Ruins of the Garianonum, near Yarmouth.)

XXVIII.—On the Formation of the Stomata. By HUGO MOHL. (Linnæa, 1838, p. 544, with a Plate.)*

M. MIRBEL is the only person, so far as I know, who, in his memoir on *Marchantia polymorpha*, has published any

* From the translation in the Annales des Sciences Naturelles, April 1840, p. 222.